

REMARKS

Claims 47-79 are all the claims pending in the application. Claims 18-27, 45 and 46, have been canceled without prejudice or disclaimer. Previously, claims 1-17 and 28-44 were canceled without prejudice or disclaimer. Reconsideration and allowance of all the claims are respectfully requested in view of the following remarks.

Claim Rejections - 35 U.S.C. §102

- The Examiner rejected claims 47-49, 56, and 67, under §102(a) as being anticipated by US Patent 4,688,951 to Guers (hereinafter Guers). Applicants respectfully traverse this rejection because Guers fails to disclose all of the elements as set forth and arranged in the claims.

Claim 47 sets forth a ring secured to at least one of an inner ring and an outer ring of a bearing, wherein the ring includes: (1) a sensor; (2) a transmitting part; (3) a control part; and (4) a power source.

In contrast to that set forth in claim 47, Guers discloses a sensor 23 and a power source 21 that are not located on a ring that also includes a transmitting part and a control part. Instead, Guers discloses sensor 23 and power source 21 as being located away from the transmitting part.

Accordingly, for at least any of the above reasons, Guers fails to anticipate claim 47. Likewise this reference fails to anticipate dependent claim 48.

Additionally, previously the Examiner had applied only a rejection under § 112, 2nd paragraph, to these claims, but now includes them in the statement of the rejection. Accordingly, it appears that either claims 47 and 48 erroneously are included in this statement of the rejection, or that the February 13th Office Action should not have been made final as it applies a new ground of rejection to claims 47 and 48.

Claim 49 sets forth a rolling bearing with sensor, comprising: an inner ring; an outer ring; a plurality of rolling elements; and a sensor having a detecting part and a circuit part connected to the detecting part, wherein the detecting part and circuit part are directly attached to the rolling bearing, and wherein at least one of the detecting part and the circuit part is attached to at least one of the inner and outer rings along a circumferential direction thereof.

For example, as shown in Figs. 27A and B, one embodiment consistent with claim 49 is a rolling bearing 291 with sensor 209, comprising: an inner ring 203; an outer ring 202; a plurality of rolling elements 205; and a sensor 209 having a detecting part 210 and a circuit part (one of 211-213) connected to the detecting part, wherein the detecting part 210 and circuit part (one of 211-213) are directly attached to the rolling bearing, and wherein at least one of the detecting part and the circuit part is attached to at least one of the inner and outer rings along a circumferential direction thereof.

In contrast to that set forth in claim 49, Guers discloses a probe 8 that is provided with rolling bearing 10 via deflector 5. Further, Guers discloses that the wire—which the Examiner asserts is a circuit part¹—is attached to elements 6' and 19; it is not attached directly to the bearing 1, 2, 3, 4. Further, Guers discloses that sensor 23 is located away from the bearing, and indirectly is attached to the deflector 6 through amp 22, and a wire. Accordingly, Guers fails to disclose that a detecting part and a circuit part are directly attached to the rolling bearing, as set forth in claim 49.

For at least the above reasons, Guers fails to anticipate claim 49. Likewise, this reference fails to anticipate dependent claim 56 and 67.

- The Examiner rejected claims 50, 55, 57, 59, 61, 68, 70, 72, 74, 76, 78, and 79, under §102(a) as being anticipated by US Patent 5,898,388 to Hofmann et al. (hereinafter Hofmann). First, in light of the April 27th interview, this statement of rejection was not meant to include claims 55 and 79. Further, claims 59, 61, 70, 74, and 78, depend from claim 55 and, therefore, also should not be included in this statement of rejection. With respect to the remaining claims 50, 57, 68, 72, and 76, Applicants respectfully traverse this rejection because Hofmann fails to disclose all of the elements as set forth and arranged in the claims.

Claim 50 sets forth a rolling bearing with sensor, comprising: an inner ring; an outer ring; a plurality of rolling elements; and a sensor having a detecting part and a circuit part connected to the detecting part, wherein the detecting part and the circuit part are directly attached to the

¹ Office Action at page 5, 1st full paragraph.

rolling bearing, and wherein at least one of the detecting part and the circuit part is attached to an end face of at least one of the inner and outer rings.

In contrast to that set forth in claim 50, Hofmann discloses a speed sensor 7 and microchip 8 are disposed on sealing disk 5; they are not located on outer ring 1, inner ring 2 or rolling body 3. Accordingly, Hofmann fails to disclose a detecting part and a circuit part that are directly attached to a rolling bearing, as set forth in claim 50.

For at least the above reasons, Hofmann fails to anticipate claim 50. Likewise, this reference fails to anticipate dependent claims 57, 68, 72, and 76.

Claim Rejections - 35 U.S.C. §103

- The Examiner rejected claim 51 under §103(a) as being unpatentable over Hofmann in view of official notice of common knowledge in the art. Applicants respectfully traverse this rejection because the references fail to teach or suggest all the elements as set forth and arranged in the claim.

As noted above, Hofmann is deficient. The Examiner asserts that it would have been obvious to one of ordinary skill to provide a cover. However, provision of a cover does not provide motivation for locating a detecting part and a circuit part directly on the rolling bearing, as set forth in claim 51. Accordingly, even assuming that one of ordinary skill in the art were motivated to modify Hofmann as suggested by the Examiner, any such combination would still not teach or suggest all the elements as set forth in claim 51.

- The Examiner rejected claim 66 under §103(a) as being unpatentable over Guers. In light of the April 27th interview, this rejection is believed to be in error and, therefore, Applicants respectfully request that it be withdrawn.

Allowable Subject Matter

Applicants thank the Examiner for indicating that claims 63, 65, 71, and 75, would be allowable if rewritten in independent form. Accordingly, to expedite prosecution of this application, claim 71 has been rewritten in independent form, and claim 75 depends therefrom. Further, as discussed in the April 27th interview, claim 55 should have been allowed and, therefore, it is not necessary to rewrite dependent claims 63 and 65 in independent form.

Lastly, Applicants thank the Examiner for indicating that claims 52-54, 58, 60, 62, 64, 69, 73, and 77, are allowed.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: May 13, 2004



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q67064

Takeshi TAKIZAWA, et al.

RECEIVED

MAY 17 2004

Appln. No.: 09/985,921

Group Art Unit: 3682

GROUP 3600

Confirmation No.: 4568

Examiner: Lenard A. Footland

Filed: November 06, 2001

For: ROLLING BEARING DEVICE AND RING WITH SENSOR FOR THE ROLLING BEARING DEVICE

STATEMENT OF SUBSTANCE OF INTERVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Please review and enter the following remarks summarizing the interview conducted on April 27, 2004.

REMARKS

An Examiner's Interview Summary Record (PTO-413) was attached with the Communication dated April 30, 2004.

During the interview, the following was discussed:

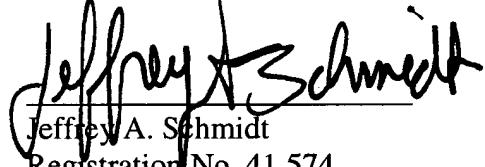
1. Brief description of exhibits or demonstration: none
2. Identification of claims discussed: 55, 66, and 79
3. Identification of art discussed: none
4. Identification of principal proposed amendments: none
5. Brief Identification of principal arguments: none
6. Indication of other pertinent matters discussed: Applicants' representative asked for clarification of the Office Action as mailed on February 13, 2004. Specifically, Applicants' representative noted that claims 55, 66, and 79, were based on previous claims 9, 13, and 17,

respectively, which the Examiner indicated as being allowable in the previous Office Action as mailed on June 4, 2003. However, in the February 13 Office Action, these claims were listed in statements of rejections, but the Office Action was made final. Accordingly, Applicants' representative asked whether claims 55, 66, and 79, were erroneously listed in the statements of the rejection, or whether the Office Action should not have been made final.

7. Results of Interview: the Examiner indicated that claims 55, 66, and 79, should not have been listed in the statements of the rejection but, instead, should have been indicated as being allowable.

It is believed that no petition or fee is required. However, if the USPTO deems otherwise, Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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